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Water, Energy, and Waste: Integrating Themes of Sustainability into Your Classroom

Spring 2012

NY SunWorks

Course Instructor: Shakira Castronovo

Midterm

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LESSON PLAN

Description:

The kindergarten students have been learning about what living things need to survive, which aligns to the NYC Science Scope and Sequence for Kindergarten. The kindergarten students have listened to read alouds of books including *All the Water in the World*  by George Ella Lyon and understand that humans and animals need water to live. The students have an understanding of the role of water in their lives and on Earth.

This lesson will allow the students to become familiar with the fact that there is limited drinking water available on Earth and that the students can perform water-saving tasks that will increase sustainability on Earth. The read aloud of the book *Let’s Save Water (Caring for the Earth)* by Sara E. Nelson will illustrate ways in which students can conserve water in their daily lives. Water conserving skills will be identified and developed through the creation of the class book, as students contribute pages illustrating ways in which they can conserve water. Skills will also be developed as students participate in whole-group and partner discussions. The class-created book will be kept in the classroom and will be available for students to refer to in future days.

Lessons that will follow this lesson will include lessons involving greater ways in which to care for the Earth in relation to other needs of humans and animals including healthy food and safe shelter.

Grade Level: Kindergarten ICT

Topic: Water in Our World: Water Conservation

Standards:

Student:

NYC Science Scope and Sequence: LE 1.1a LE 1.2a LE 4.1g LE 4.2a

Identify the basic needs of organisms to live and thrive: (air, **water**, food, shelter)

ELA Common Core Standards

Reading Standards for Informational Text K-5:

**1.** With prompting and support, ask and answer questions about key details in a text.

**2.** With prompting and support, identify the main topic and retell key details of a text.

Writing Standards K-5

**2.** Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.

Professional Development of Teacher:

Charlotte Danielson’s Framework for Teaching

Domain 1e: **Designing Coherent Instruction**

* Instructional materials and resources
* Instructional groups
* Lesson and unit structure

Domain 3b:**Using Questioning and Discussion Techniques**

• Quality of questions/prompts

* Discussion techniques
* Student participation

Time: 50 minutes

Objectives: (Blooms taxonomy)

• The students will be able to indentify ways in which they can save water. (Comprehension)

• The students will be able to verbally describe ways in which they can save water. (Evaluation)

• The students will be able to illustrate a way in which they can save water. (Analysis)

Materials:

Book: *Let’s Save Water (Caring for the Earth)* by Sara E. Nelson

Paper, pencils, crayons

Procedures

Connection: (10 mins)

I will lead the class in a brief whole group discussion on what they know about water and where they can find water in their lives. I will prompt them with the following ideas: sinks, pools, oceans, water fountains.

I will lead the class in a movement activity while singing the following song:

***We Need Water to Survive***

(To the tune of “Old McDonald”)

*We need water to survive*

*It keeps us alive!*

*And if you drink it everyday*

*You can run and play.*

*It’s in our food,*

*It’s in the air,*

*You’ll find water everywhere,*

*We need water to survive,*

*It keeps us alive!*

Direct Teaching Lesson: (15 mins)

In a whole group setting, I will explain that we cannot drink all of the water on Earth because some of the water is not healthy for us to drink. I will explain that only a small bit of the water on Earth is good for drinking and will keep us alive. I will give the students the opportunity to “Turn and Talk” with their partners and share their thoughts about the following questions:

“What do you like about water?”

“How would you feel if there was not enough clean water in the world for us to use?”

I will perform a read aloud of *Let’s Save Water (Caring for the Earth)* by Sara E. Nelson, allowing the students to look at the illustrations using the document camera on the interactive whiteboard. During the read aloud, I will pause and will give the students the opportunity to “Turn and Talk” with their partners and share their thoughts about the ideas presented in the book.

Student Application: (15 mins)

The students will return to their seats and write a sentence about something they can do to save water, using ideas that were presented during the read aloud. The students will also be instructed to illustrate their ideas. My co-teacher and I will guide the students in generating ideas within the small groups at their tables and will guide the students in using letter sound knowledge to write their words for the sentences. The students will also have the opportunity to refer to the key words from the read-aloud by referring back to the book.

Share: (10 mins)

We will comprise the writing of the students into a class book titled “Kindergarten Knows How to Save Water”. I will perform a read aloud the book of the class book.

Assessment/Rubric:

My co-teacher and I will observe the students during class discussion and during the writing activity.

We will use the following rubric to reflect on the students’ work:

|  |  |  |  |
| --- | --- | --- | --- |
| Task | 3 | 2 | 1 |
| Identify and discuss water conserving activities | -Identifies water conserving activity and explains activity in great detail | -Identifies a way in which to conserve water and explains activity in some detail | -Does not explain activity in detail |
| Illustrate water conserving activity | -Illustrates activity using great detail | -Illustrates activity using some detail | -Illustrates activity using little detail |
| Add text about water conserving activity | -Adds text using key words from read aloud | - Adds some text | - Does not add text |

The students will use the following rubric to reflect on their own work:

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Q** | 😐 | ☹ |
| **My Pictures** | I drew clear pictures and added details | I drew clear pictures but did not add details | I did not draw clear pictures |
| **My Writing** | I wrote words and used key words | I wrote words | I did not write words |
| **Class Discussion** | I listened to my friends the whole time and I shared my ideas. | I listened to my friends for some of the time and shared some ideas. | I was not a good listener. |